

## ABSTRACT

The present invention provides electrolyte sheets for solid oxide fuel cells, the electrolyte sheets being  
5 able to improve their adhesion to electrode films formed on both surfaces thereof and being also able to improve electric power generation characteristics of fuel cells by an increase in their electrode reaction areas. There is disclosed an electrolyte sheet for solid oxide fuel  
10 cells including a sintered sheet, wherein surface roughness of the sheet as measured by an optical and laser-based non-contact three-dimensional profile measuring system is 2.0 to 20  $\mu\text{m}$  in  $R_z$  and 0.20 to 3.0  $\mu\text{m}$  in  $R_a$ , and wherein a ratio of  $R_z$  of one surface (having  
15 a greater  $R_z$  and a greater  $R_a$ ) to  $R_z$  of the other surface having a smaller  $R_z$  and a smaller  $R_a$  is in a range of 1.0 to 3.0, and a ratio of  $R_a$  of one surface (having a greater  $R_z$  and a greater  $R_a$ ) to  $R_a$  of the other surface having a smaller  $R_z$  and a smaller  $R_a$  is in a range of  
20 1.0 to 3.0, and a ratio of  $R_{\text{max}}$  to  $R_z$  ( $R_{\text{max}}/R_z$  ratio) of at least one surface is in a range of 1.0 to 2.0.